

WHAT IS CLAIMED IS: ⁻¹⁷⁻

CLAIMS

1. A rinse module comprising at least one circular turret rotatable about a substantially horizontal axis and adapted to transport containers through the rinse module, where they are rinsed with cleaning fluid,
characterised in that
the or each turret is adapted to support the containers around its periphery with their open ends pointing downwards at all times during the rotation cycle, and
the axis of rotation of the or each turret is arranged at an angle to the horizontal sufficient to ensure drainage of the cleaning fluid from the containers by gravity.
2. A rinse module according to claim 1, wherein the or each turret is adapted to support the containers their principle longitudinal axes parallel to the rotation axis of the turret.
3. A rinse module according to claim 1 or claim 2, further comprising guide means, arranged to transfer the containers from one turret to the next.
4. A rinse module according to any of the preceding claims, wherein the turret is a star wheel with a plurality of pockets defined around its periphery, the pockets adapted to receive the containers.

-18-

5. A rinse module according to any one of claims 1 to 3, wherein the turret further comprises a plurality of rotatable mandrels arranged around its, adjacent mandrels defining pockets adapted to receive the containers.
6. A rinse module according to claim 4 or claim 5, further comprising a stationary guide rail arranged around at least part of the periphery of the turret and adapted to support the containers within the pockets.
7. A rinse module according to claim 6, wherein the guide rail is arranged to provide sufficient contact between the guide rail, the containers and the pockets, to rotate the containers about their longitudinal axes as they are transported around the periphery of the turret.
8. A rinse module according to any one of the preceding claims, wherein the or each turret is arranged with its axis of rotation at an angle of about 15° to the horizontal.
9. A rinse module according to any one of the preceding claims, comprising a washing stage and a drying stage, each stage having an independent circular turret and means for transferring the containers from one turret to the next at the end of each stage.
10. A rinse module according to claim 8, wherein the axes of rotation of the washing stage and drying stage

Cont
Rev
K2

-19-

turrets are parallel but offset vertically from one another and the drying stage turret is located above the washing stage turret.

sent
A3

11. A rinsing device comprising a plurality of rinse modules in accordance with any of the preceding claims.

12. A rinsing device according to claim 11 wherein the waste cleaning fluid from each rinse module is used to supply the previous rinse module.

sent
A4

13. A rinsing device according to claim 11 or claim 12, wherein de-ionised water is used as the cleaning fluid in the final rinse module.

14. A rinsing device according to any one of claims 11 to 13, wherein a negative pressure is created inside at least some of the rinse modules to improve drying of the containers.

Add > A5

add B1